Medical Expenditure Panel Survey

Agency for Healthcare Research and Quality

STATISTICAL BRIEF #357

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Expenditures for Treatment of Mental Health Disorders among Children, Ages 5-17, 2007-2009: Estimates for the U.S. Civilian Noninstitutionalized Population

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Highlights

- An annual average of 4.6 million or 8.6 percent of children ages 5-17 had some health care expenses for mental health disorders in 2007-2009.
- Average annual direct medical spending to treat mental health disorders totaled $10.3 billion (in 2009 dollars) during 2007-2009, with almost 39 percent ($4.0 billion) for prescription medications.
- Annual expenditures for mental health among school-age children with such expenses averaged $2,224 (in 2009 dollars) per child in 2007-2009.
- Nearly half of expenditures for treatment of mental health disorders for children ages 5-17 years during 2007-2009 were paid by Medicaid.

Introduction

Mental health disorders affect a person's emotional, social, and behavioral well-being. As a result of the Patient Protection and Affordable Care Act, beginning in 2014, mental health disorder services will be part of the essential benefits package, a set of health care service categories that must be covered by certain plans, including all insurance policies that will be offered through state-based exchanges and Medicaid.

This Statistical Brief presents estimates based on the Household Component of the Medical Expenditure Panel Survey (MEPS-HC) on the use of and expenditures for all medical care, ambulatory care (office-based provider and hospital outpatient visits), and prescribed medicines to treat mental health disorders among school-age children in the U.S. civilian noninstitutionalized population. Average annual estimates for 2007–2009 are shown by type of service and source of payment. Expenditures for pooled years are expressed in constant dollars by inflating those for 2007–08 to 2009 U.S. dollars using the Personal Health Care Expenditure (PHCE) price index component of the National Health Expenditure Accounts (http://www.meps.ahrq.gov/mepsweb/about_meps/Price_Index.shtml). All differences between estimates noted in the text are statistically significant at the 0.05 level or better.

Findings

An annual average of 8.6 percent of U.S. children ages 5–17 (about 4.6 million persons) received some type(s) of treatment for mental health disorders in 2007–2009 (figure 1), with 6.7 percent of U.S. children ages 5–17 receiving ambulatory care and 1.8 percent receiving prescription medications during this period. On average, 1.0 percent received other services such as hospital inpatient stays, emergency room visits, or home health care.

During the 2007 through 2009 period, an average annual total of $10.3 billion (in 2009 dollars) was spent on treatment of mental health disorders among children ages 5–17. On average, 38.8 percent of these expenditures were for prescription medicines ($4.0 billion) and 30.1 percent were for ambulatory visits ($3.1 billion) (figure 2).

The average annual mean expenditure per child age 5–17 for the treatment of mental health disorders (among those with expenses for mental health) averaged $2,224 during 2007–2009. The mean expense per child for ambulatory visits was $846 and $1,148 for prescription medications (figure 3).

Variations by selected demographic characteristics
The average annual percent with reported treatment for mental health disorders in 2007−2009 was slightly higher for children ages 12−17 years (9.6 percent) than those 5−11 years (7.7 percent) (figure 4). More school-age boys received treatment for mental health disorders (11.6 percent) than girls (5.5 percent). In addition, a higher proportion of Non-Hispanic white children ages 5−17 were treated for mental health disorders (10.9 percent) than Hispanic children (5.0 percent), non-Hispanic black children (6.6 percent), or non-Hispanic children of other races (5.8 percent).

During 2007−2009, the average annual expenditure for treatment of mental health disorders for children ages 5−17 was higher for non-Hispanic whites ($2,363) than other race/ethnic groups (range from $1,810−$2,029) (figure 5). However, there was no significant difference in the mean expenditure for treatment of mental health disorders between younger and older school-age children or between boys versus girls.

Sources of payment
Nearly half (46.2 percent) of average annual expenditures for the treatment of mental health disorders for school-age children in 2007−2009 were paid by Medicaid, while private insurance paid 32.5 percent, and 12.6 percent were paid out of pocket by families or other individuals (figure 6). About 15.1 percent of the expenses for prescription medicines and 21.7 percent of the expenses for ambulatory visits were paid out of pocket (data not shown in figures).

Data Source

The estimates shown in this Statistical Brief are based on data from the following MEPS data files for 2007−2009: Full Year Consolidated (HC-113, HC-121, HC-129); Medical Conditions (HC-112, HC-120, HC-128); Prescribed Medicines (HC-110A, HC-118A, HC-126A); Hospital Inpatient Stays (HC-110D, HC-118D, HC-126D); Emergency Room Visits (HC-110E, HC118E, HC-126E); Outpatient Visits (HC-110F, HC-118F, HC-126F); Office-Based Medical Provider Visits (HC-110G, HC-118G, HC-126G); and Home Health (HC-110H, HC-118H, HC-126H).

Definitions

Mental health disorders
This Brief analyzes school-age children ages 5−17 with mental health disorders in connection with health care utilization. The conditions reported by respondents were recorded by interviewers as verbatim text which was then coded by professional coders to fully specified ICD-9-CM codes. These codes were regrouped in clinically homogenous categories known as CCS codes. Conditions with CCS codes 650−670 (mental health) were used for this Brief. A crosswalk of ICD-9 codes and CCS codes is available in the documentation file of the Medical Conditions File. For additional information on crosswalk between ICD-9 codes and CCS codes, please visit: http://www.hcup-us.ahrq.gov/toolssoftware/ccs/ccs.jsp.

Ambulatory care
Any visit to a hospital outpatient department, private doctor's office, group practice, health clinic, walk-in surgi-clinic/center, walk-in urgi-care center, company or school clinic, infirmary, neighborhood health clinic, family planning center, or mental health facility.

Expenditures
Expenditures associated with treated medical conditions in MEPS are defined as payments from all sources for hospital inpatient care, ambulatory care provided in offices and hospital outpatient departments, care provided in emergency departments, paid care provided in the patient's home (home health), and the purchase of prescribed medications. Sources include direct payments from individuals, private insurance, Medicare, Medicaid, Workers' Compensation, and miscellaneous other sources. Payments for over-the-counter drugs are not included in MEPS total expenditures. Indirect payments not related to specific medical events, such as Medicaid Disproportionate Share and Medicare Direct Medical Education subsidies, are also excluded.

Expenditures were classified as being associated with mental health if a visit, stay, or medication purchase was cited as being related to mental health. Expenditures may be associated with more than one condition and therefore may include some for conditions other than mental health. Total spending does not include amounts for other medical expenses, such as durable and nondurable supplies, medical equipment, eyeglasses, ambulance services, and dental expenses, because these items could not be linked to specific conditions.

Racial and ethnic classifications
Classification by race and ethnicity was based on information reported for each family member. Respondents were asked if each family member was Hispanic or Latino. Respondents were also asked which race or races best described each family member. Race categories included white, black/African American, American Indian or Alaska Native, Asian, Native Hawaiian or other Pacific Islander, and other. Based on these questions, sample persons were classified into the following race/ethnicity categories: Hispanic, black non-Hispanic single race, white non-Hispanic single race, and other (Asian non-Hispanic single race, Hawaiian/Pacific Islander non-Hispanic, American Indian/Alaska Native non-Hispanic, and multiple races non-Hispanic).

Sources of payment

- *Private insurance*: This category includes payments made by insurance plans covering hospital and other medical care (excluding payments from Medicare, Medicaid, and other public sources), Medigap plans, and TRICARE (Armed Forces-related coverage).
- *Medicare*: Medicare is a federally financed health insurance plan for the elderly, persons receiving Social Security disability payments, and persons with end-stage renal disease. Medicare Part A, which provides hospital insurance, is automatically given to those who are eligible for Social Security. Medicare Part B provides supplementary medical insurance that pays for medical expenses and can be purchased for a monthly premium. Medicare Part D, which started in 2006, covers prescription drug expenses.
- *Medicaid/CHIP*: This category includes payments made by the Medicaid and CHIP programs which are means-tested government programs financed jointly by federal and state funds that provide health care to those who are eligible. Medicaid is designed to provide health coverage to families and individuals who are unable to afford necessary medical care while CHIP provides coverage to additional low income children not eligible for Medicaid. Eligibility criteria for both programs vary significantly by state.
- *Out of pocket*: This category includes expenses paid by the user or other family member.
- *Other sources*: This category includes payments from other federal sources such as Indian Health Service, military treatment facilities, and other care provided by the federal government; various state and local sources (community and neighborhood clinics, state and local health departments, and state programs other than Medicaid/CHIP); various unclassified sources (e.g., automobile, homeowner's, or other liability insurance, and other miscellaneous or unknown sources); Medicaid/CHIP payments reported for persons who were not reported as enrolled in the Medicaid or CHIP programs at any time during the year; and private insurance payments reported for persons without any reported private health insurance coverage during the year.

About MEPS-HC

MEPS-HC is a nationally representative longitudinal survey that collects detailed information on health care utilization and expenditures, health insurance, and health status, as well as a wide variety of social, demographic, and economic characteristics for the U.S. civilian noninstitutionalized population. It is cosponsored by the Agency for Healthcare Research and Quality and the National Center for Health Statistics.

For more information about MEPS, call the MEPS information coordinator at AHRQ (301) 427-1406 or visit the MEPS Web site at http://www.meps.ahrq.gov/.

References

For a detailed description of the MEPS survey design, sample design, and methods used to minimize sources of nonsampling errors, see the following publications:

Cohen, J. *Design and Methods of the Medical Expenditure Panel Survey Household Component*. MEPS Methodology Report No. 1. AHCPR Pub. No. 97-0026. Rockville, MD. Agency for Health Care Policy and Research, 1997. http://www.meps.ahrq.gov/mepsweb/data_files/publications/mr1/mr1.pdf.

Cohen, S. *Sample Design of the 1996 Medical Expenditure Panel Survey Household Component*. MEPS Methodology Report No. 2. AHCPR Pub. No. 97-0027. Rockville, MD. Agency for Health Care Policy and Research, 1997. http://www.meps.ahrq.gov/mepsweb/data_files/publications/mr2/mr2.pdf

Cohen, S. Design Strategies and Innovations in the Medical Expenditure Panel Survey. *Medical Care*, July 2003: 41(7) Supplement: III-5–III-12.

Ezzati-Rice, T.M., Rohde, F., Greenblatt, J. *Sample Design of the Medical Expenditure Panel Survey Household Component, 1998–2007*. Methodology Report No. 22. March 2008. Agency for Healthcare Research and Quality, Rockville, MD. http://www.meps.ahrq.gov/mepsweb/data_files/publications/mr22/mr22.pdf.

For more information about mental health disorders, see the following:

Mental Health Fact Sheet: http://www.cdc.gov/nchs/fastats/mental.htm

Suggested Citation

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AHRQ welcomes questions and comments from readers of this publication who are interested in obtaining more information about access, cost, use, financing, and quality of health care in the United States. We also invite you to tell us how you are using this Statistical Brief and other MEPS data and tools and to share suggestions on how MEPS products might be enhanced to further meet your needs. Please e-mail us at MEPSProjectDirector@ahrq.hhs.gov or send a letter to the address below:

Steve B. Cohen, PhD, Director
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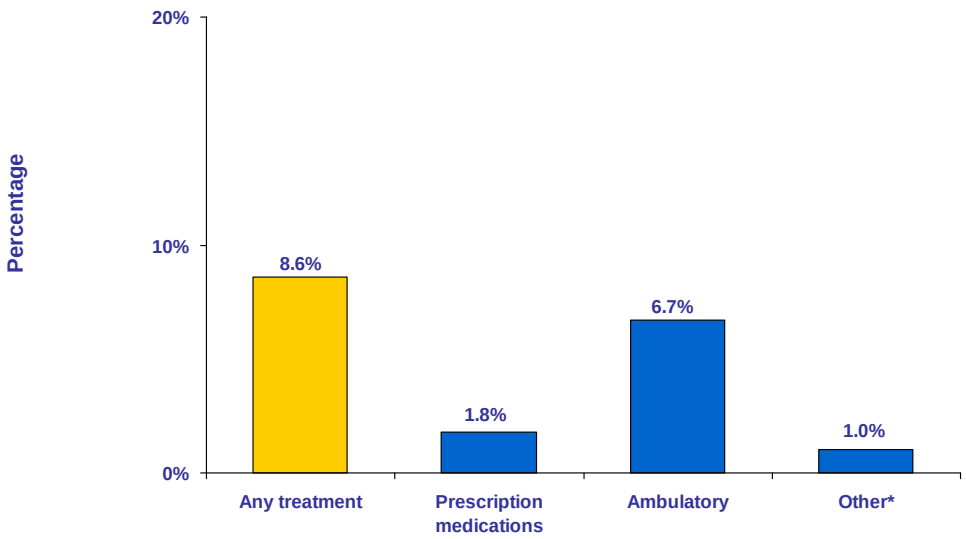
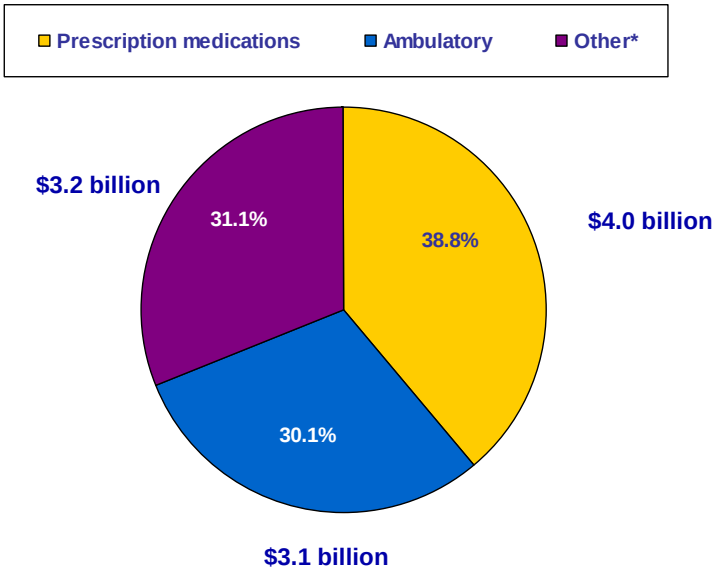
Agency for Healthcare Research and Quality
540 Gaither Road
Rockville, MD 20850

Figure 1. Percentage of children, ages 5–17, with selected types of treatment for mental health disorders, 2007–2009 (average annual)



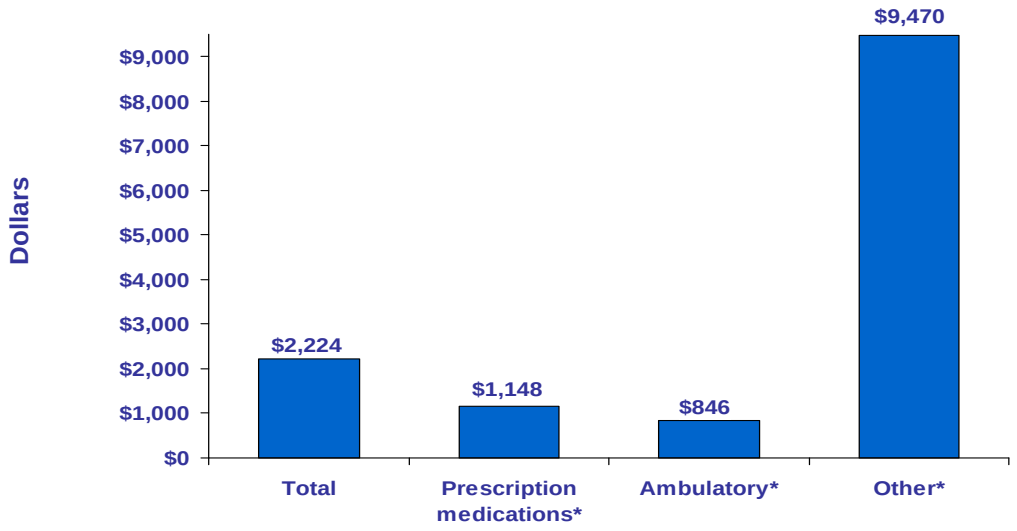
*Other services include hospital inpatient stays, emergency room visits, and home health.
Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 2007–2009

Figure 2. Total medical expenditures for mental health disorders, by type of service: Children, ages 5–17, 2007–2009 (average annual)



*Other services include hospital inpatient stays, emergency room visits, and home health.
Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 2007–2009

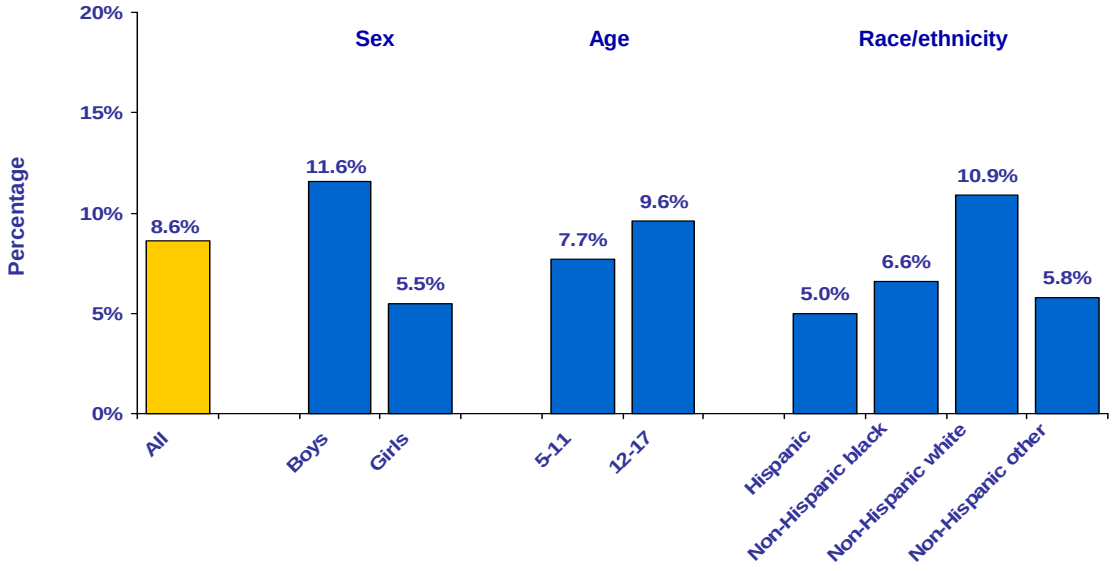
Figure 3. Mean expenditures per child for mental health disorders among those with care for mental health disorders, by type of service: Children, ages 5–17, 2007–2009 (average annual)



*Estimates are for 20.6% of children with care for mental health disorders who had prescription medications expenses and for 78.3% of children with care for mental health disorders who had at least 1 ambulatory visit and for 11.1% of children who had at least 1 inpatient, emergency room, or home health visit.

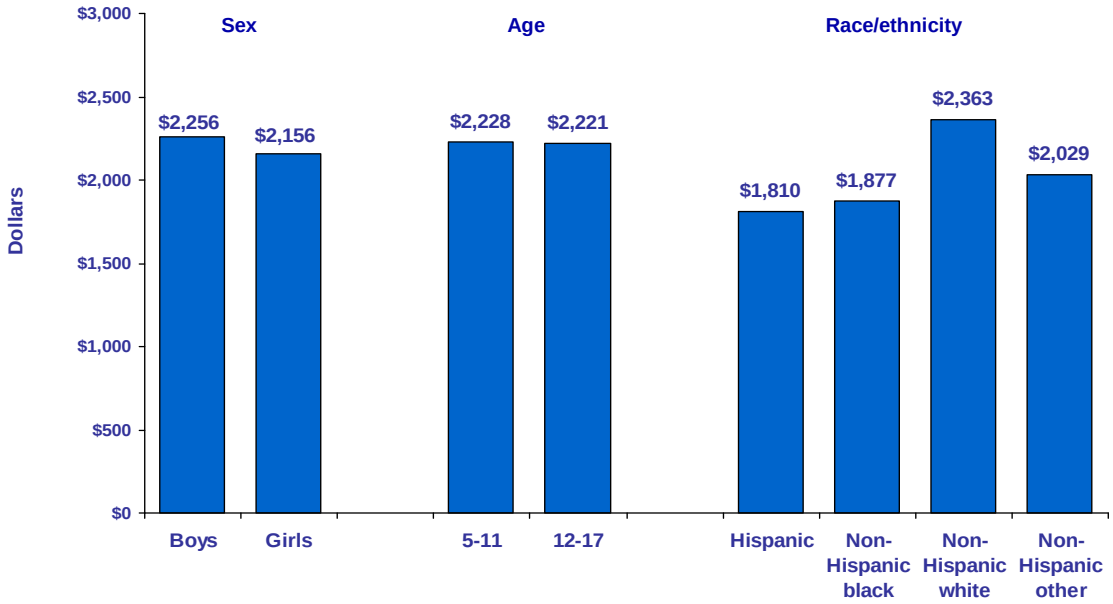
Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 2007–2009

Figure 4. Percentage of children, ages 5–17, with treatment for mental health disorders by demographic characteristics, 2007–2009 (average annual)



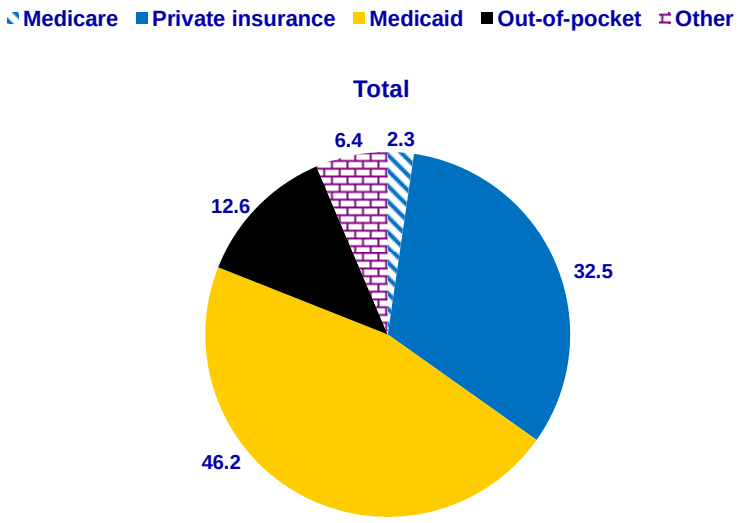
Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 2007–2009

Figure 5. Mean expenditures per child, ages 5–17, with treatment for mental health disorders by demographic characteristics, 2007–2009 (average annual)



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 2007–2009

Figure 6. Percentage distribution of total expenditures for mental health disorders, by source of payment: Children, ages 5–17, 2007–2009 (average annual)



Source: Center for Financing, Access, and Cost Trends, AHRQ, Household Component of the Medical Expenditure Panel Survey, 2007–2009